

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) A method for determining the mass of a motor vehicle while taking different driving situations into consideration, involving an evaluation of a vehicle acceleration, wherein apart from a driving force of a vehicle drive unit, resistance forces resulting from rotational forces, air resistance, rolling resistance and the slope descending force are taken into consideration,

wherein a braking force is also taken into consideration.

2. (original) The method of claim 1, wherein a plurality of different driving situations are evaluated, individual mass evaluation results from each of the plurality of driving situation evaluations are stored, and

the stored individual mass evaluation results are combined into a collective mass value.

3. (original) The method of claim 2, wherein when determining the collective mass value, different driving situations are weighted differently.

4. (original) The method of claim 1, wherein
for taking the slope descending force into consideration, a roadway
inclination is determined by determining, by means of at least one longitudinal
acceleration sensor installed in the vehicle, an acceleration occurring in the
horizontal direction and by relating it to the acceleration occurring in the
roadway direction.

5. (original) The method of claim 2, wherein
for taking the slope descending force into consideration, a roadway
inclination is determined by determining, by means of at least one longitudinal
acceleration sensor installed in the vehicle, an acceleration occurring in the
horizontal direction and by relating it to the acceleration occurring in the
roadway direction.

6. (original) The method of claim 3, wherein
for taking the slope descending force into consideration, a roadway
inclination is determined by determining, using at least one longitudinal
acceleration sensor installed in the vehicle, an acceleration occurring in the
horizontal direction and relating the acceleration in the horizontal direction to
an acceleration occurring in the roadway direction.

7. (original) The method of claim 4, wherein
a vehicle body pitch angle is taken into consideration.

8. (original) The method of claim 1, wherein
the braking force is estimated from operating data from a brake system
installed in the vehicle.

9. (original) The method pursuant to claim 8, wherein
the braking force is determined from a braking pressure and an estimated
coefficient of friction between a brake lining and a brake disc.

10. (original) The method of claim 8, wherein
only braking operations without notable slippage between tires and
roadway are taken into consideration.

11. (original) The method of claim 9, wherein
only braking operations without notable slippage between tires and
roadway are taken into consideration.

12. (original) The method of claim 1, wherein
the braking force is determined from a comparison of a path traveled
during a braking operation.

13. (original) The method of claim 4, wherein
at least one of the roadway inclination and the path traveled during a
braking operation is determined from a vehicle navigational system.

14. (currently amended) The method of claim 1, wherein
detectable offsets in at least one of the vehicle acceleration, driving force of
a vehicle drive unit, resistance forces resulting from rotational forces, air
resistance, rolling resistance and the slope descending force are corrected.

15. (original) The method of claim 1, wherein
plausibility controls are provided.

16. (currently amended) A method for determining the mass of a motor
vehicle, comprising the steps of:

determining a vehicle acceleration;

determining vehicle forces, wherein the vehicle forces include

a driving force of a vehicle drive unit,

resistance forces resulting from rotational forces, air resistance,

rolling resistance and the slope descending force ~~are taken into
consideration~~, and

a braking force; and

dividing the vehicle forces by the vehicle acceleration to obtain a vehicle
mass value.

17. (original) The method of claim 16, further comprising the steps of:
obtaining a plurality of vehicle mass values from a plurality of driving
situations;

storing each of the plurality of vehicle mass values, and
determining a collective mass value from the stored plurality of vehicle
mass values.

18. (original) The method of claim 17, wherein
in the step of determining the collective mass value, vehicle mass values
obtained in different driving situations in the plurality of driving situations are
weighted differently.

19. (original) The method of claim 16, wherein
in the step of determining vehicle forces, the slope descending force
determination includes determination of a roadway inclination from a
relationship between an acceleration in the roadway direction determined by at
least one longitudinal acceleration sensor installed in the vehicle, and a
component of the acceleration in the roadway direction normal to a gravity
direction.

20. (original) The method of claim 19, wherein
the component of the acceleration in the roadway direction normal to a
gravity direction is determined from a satellite-based navigation system.

21. (original) The method of claim 17, wherein
in the step of determining vehicle forces, the slope descending force
determination includes determination of a roadway inclination from a
relationship between an acceleration in the roadway direction determined by at
least one longitudinal acceleration sensor installed in the vehicle, and a
component of the acceleration in the roadway direction normal to a gravity
direction.

22. (original) The method of claim 18, wherein
in the step of determining vehicle forces, the slope descending force
determination includes determination of a roadway inclination from a
relationship between an acceleration in the roadway direction determined by at
least one longitudinal acceleration sensor installed in the vehicle, and a
component of the acceleration in the roadway direction normal to a gravity
direction.

23. (original) The method of claim 19, wherein
a vehicle body pitch angle is considered in determining the slope
descending force.

24. (original) The method of claim 16, wherein
the braking force is estimated from operating data from a brake system
installed in the vehicle.

25. (original) The method pursuant to claim 24, wherein
the braking force is determined from a braking pressure and an estimated
coefficient of friction between a brake lining and a brake disc.

26. (original) The method of claim 24, wherein
the operating data from the braking system is obtained when braking
without slippage between vehicle tires and the roadway.

27. (original) The method of claim 25, wherein
the operating data from the braking system is obtained when braking
without slippage between vehicle tires and the roadway.

28. (original) The method of claim 16, wherein
the braking force is determined from an evaluation of a path traveled
during a braking operation.

29. (original) The method of claim 19, wherein
at least one of the roadway inclination and the path traveled during a
braking operation is determined from a vehicle navigational system.

30. (currently amended) The method of claim 16, wherein
detectable offsets in at least one of the vehicle acceleration, driving force of
a vehicle drive unit, resistance forces resulting from rotational forces, air

resistance, rolling resistance and the slope descending force are corrected prior to obtaining the vehicle mass value.

31. (original) The method of claim 16, wherein
plausibility controls are provided.